

ENVIRONMENT,
HEALTH
& SAFETY
REPORT
2007

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Welcome
to our report on
environmental, health
and safety performance
for 2007.



FOREWORD

The acquisition of Quest International at the beginning of the year changed our company's profile significantly, not least in the crucial area of Environment, Health and Safety (EHS). The integration of the two companies' EHS systems was a priority and the teams worked hard to align the different systems of the two organisations. I am pleased with the progress and pay tribute to these teams.

Our data for 2007 should be seen in the context of the acquisition and portfolio change. In these circumstances, comparisons are difficult and it was very much a transition year for us.

However, as the key indicators in this report show, we made notable progress in many areas. Our focus will remain firmly on occupational safety, where we will continue to do everything to avoid any accident. After all, nothing we do is worth getting hurt for.

The link between the use of fossil fuels and greenhouse gas emissions is now generally accepted. Although our industry sector is not energy intensive, Givaudan will continue its strategy of focusing on energy efficiency improvements and promoting alternative sources. Increasing energy costs are also a main driver for these efforts.

With our new teams in place, we will be expanding our EHS activities in the future along with our sustainable business model, of which EHS is a vital part.

This approach will mean increased engagement with our stakeholders, especially our employees, who will be encouraged to involve themselves even more in contributing to achieving continuous improvement in EHS performance.

Givaudan is now the global leader in the fragrance and flavour industry, so it is absolutely necessary to aim for the corresponding leadership in EHS performance. I look forward to reporting progress to that goal in the coming years.

Gilles Andrier
Chief Executive Officer

SUMMARY

The acquisition of Quest International in March significantly changed the strategy, agenda and priorities of the EHS (environment, health and safety) organisation along with the company's profile.

Priority was given to aligning and integrating the two organisations. An integration team dealing specifically with EHS issues was put in place and workshops were held on EHS elements. A global EHS conference took place in June in Vernier, Switzerland - the first time that EHS leaders from both companies met. During the five-day conference these leaders discussed subjects such as methodologies of risk analyses, risk perception, explosion and thermal stability, crisis communication, occupational health as well as EHS reporting.

The main EHS challenges of the integration were - and will continue to be in 2008 - harmonising data, choosing relevant key performance indicators at different levels (global, divisional, regional, local), and integrating Group-wide policies and procedures. For this report, it was decided to collect information on the performance indicators considered most relevant and important to Givaudan in the past.

The biggest task was to align definitions to ensure reliability of data. However, after collecting the data, we realised it would be almost impossible to compare actual data with historical ones – even when the historical data from both companies would be combined. The explanation has to do with the influence of the combined product portfolio. It should be noted, therefore, that some trends will be the basis for our future work. We consider 2007 and the 2008 to be transition years for our EHS organisation to align strategy, definitions and objective processes.

Based on qualitative assessments, it is clear that the combined companies create many synergies. The acquired company brings strong experience and good track records in the occupational safety area, whereas Givaudan brings strong experience in process and installation safety as well as a willingness to invest where there are technical gaps. From an EHS point of view it is therefore a clear “win-win” situation.

The main issue remains occupational safety. Here we will focus even more on prevention because we regard every incident as avoidable.

CO₂ emissions have come under global scrutiny in recent years. We have been giving specific attention to this area for some years and although we are not an energy-intensive company we will continue to find ways of optimising our energy consumption. We will also focus on other areas such as water consumption, and are working closely with our engineering colleagues to find further saving potentials.

Below you will find a summary of our EHS performance in 2007. All figures are annualised and are stated as if the acquired company would have joined Givaudan at the beginning of the year compared to the effective acquisition date of 2 March, 2007. Indexes are in relation to the total production volume (Basis 100% = Givaudan- year 2000):

Safety

- Frequency
- Severity

Energy

- Electricity
- Natural gas
- Light fuel
- Heavy fuel

CO₂

- Emissions

Inorganic gases

- NO_x
- SO₂

CFC

- Consumption
- Inventory

Water

- Consumption
- Waste water quality

Hazardous waste

- Incinerated
- Landfilled

Non-hazardous waste

- Recycled
- Incinerated
- Landfilled



Switzerland: new warehouse and logistics centre

A new warehouse and logistics centre with a capacity of 7,000 pallets was inaugurated in November at our Flavours site in Dübendorf, Switzerland.

The warehouse, which features a high level of automation, allows a highly efficient flow of goods - from receiving into warehousing, to manufacturing, and ultimately for shipping to customers.

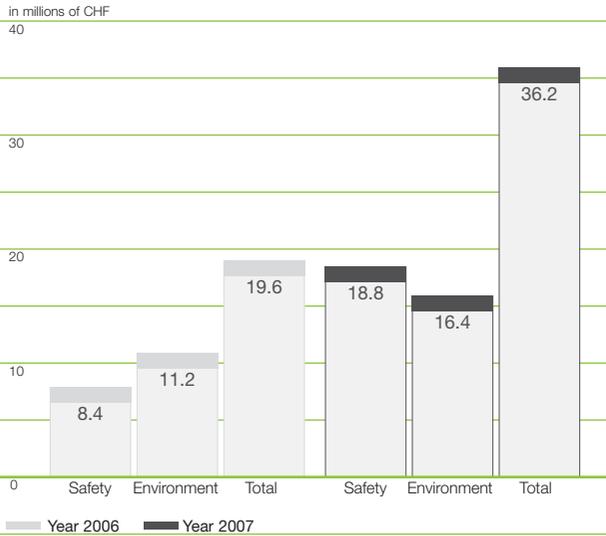
No people work in the fully automated warehouse storage area, which is maintained at a low oxygen level to avoid combustion. The storage area's 13.5% oxygen compares with normal air concentration of 20.9% oxygen. This allows flammable goods to be stored at a much higher density than in conventional warehousing. The low level of oxygen is not a

hazard for employees because it corresponds to an oxygen content as if working at an altitude of 3,900 meter (12,800 feet).

The 20-metre high warehouse is maintained at two different temperatures. Since cold air is heavier and falls, the bottom 5 metres are cooled while the top 15 metres are maintained at ambient temperature. The most flammable compounds are stored in the cooler area, making combustion almost impossible. Insurers and authorities agreed that automatic extinguishing installations such as sprinklers are not needed. However, a CO₂ extinguishing system has been installed and in the unlikely event of a fire the system would cover the floor of the warehouse with this inert gas and extinguish the flames.



EHS Investments

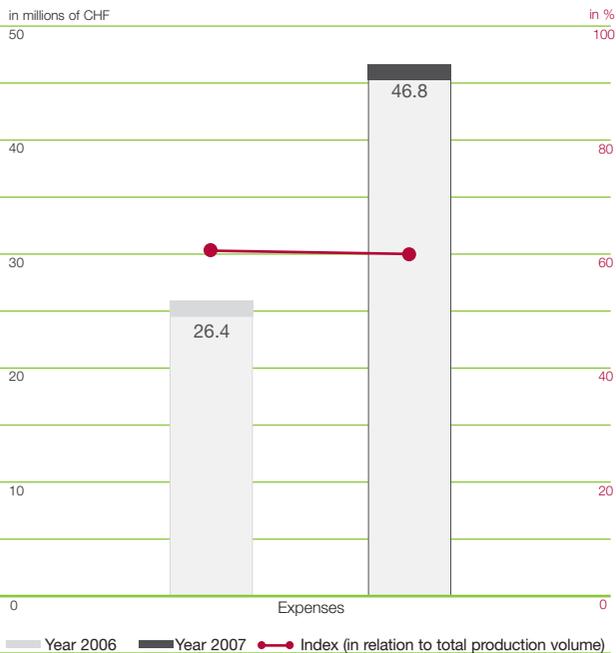


EHS INVESTMENTS

Approved EHS investments include, for example, equipment for fire detection, and security installations. If the investment is not specifically attributed to EHS, then a defined percentage of the total investment for an operating facility is accounted for according to our internal investment rules.

An increase in 2007 of 80% in total investment corresponds to the growth through the acquisition of Quest International and the subsequent integration of facilities. Investments were even more substantial in the health and safety area (+124%) mainly due to the construction of the new logistics centre at Dübendorf in Zurich, Switzerland, where an innovative fire protection system was put in place. Other projects such as electrical upgrades and investments in lighting systems at Cuernavaca in Mexico and Owings Mills in the USA contributed to capital expenditure in the safety area. Investments in the environmental area (+46%) included the installation of odour abatement systems at Dübendorf and air abatement improvements at one of our sites in Shanghai, China.

EHS Expenses



EHS EXPENSES

EHS expenses cover the maintenance of EHS equipment, waste elimination (incineration and landfilling), EHS training for all employees, small site remediation actions as well as general EHS services such as consultant fees, medical services as well as the labour costs of our EHS professionals.

As with EHS investments, growth in expenses corresponded to the acquisition of Quest International. The two entities have a comparable ratio of EHS expenses. The two largest plants account for about 40% of EHS expenses. Fragrance specialty ingredients sites accounted for 40% of EHS costs due to the wide range of ingredients and complexity of production. This is associated with substantial costs in the treatment of waste water and the elimination of air emissions.

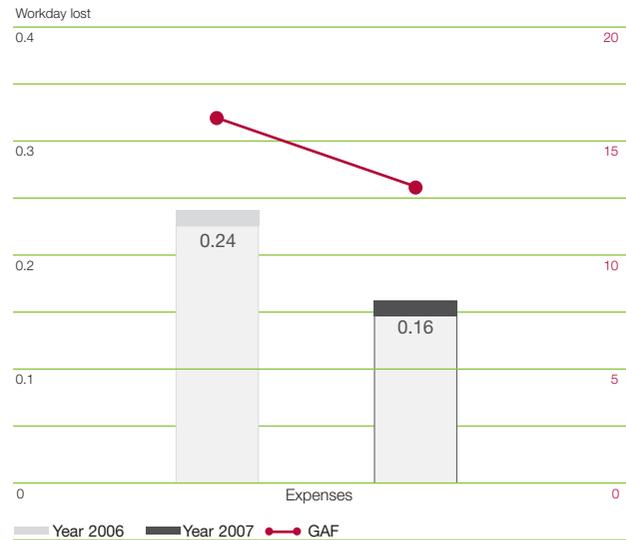
SAFETY

The Givaudan Accident Frequency (GAF) is the number of accidents per 1,000 employees in the reporting year. The Givaudan Internal Accident Index (GIAI) is the number of workdays lost per employee in the reporting year.

The decrease of the accident frequency (-20%) is mainly due to the acquired entity which joined Givaudan with a legacy of safety philosophy. The adherence to EHS rules will be a major focus in the future. 50% of our locations (20 of the 41 locations in the scope of reporting) had zero incidents, defined as an employee absence for one or more days at his/her workplace. 70% of the reported accidents happened in six locations, none at an acquired site.

The GIAI reflects accident severity. The decrease of the GIAI of 33% is also mainly due to the acquired entity. The six locations reporting the 70% of the incidents (see above) accounted for 76% of the lost days. The location with highest GIAI had 10% of the total lost days - but this with less than 2% of the total number of incidents.

Givaudan Internal Accidents Index (GIAI)



Approaching health and safety in Indonesia

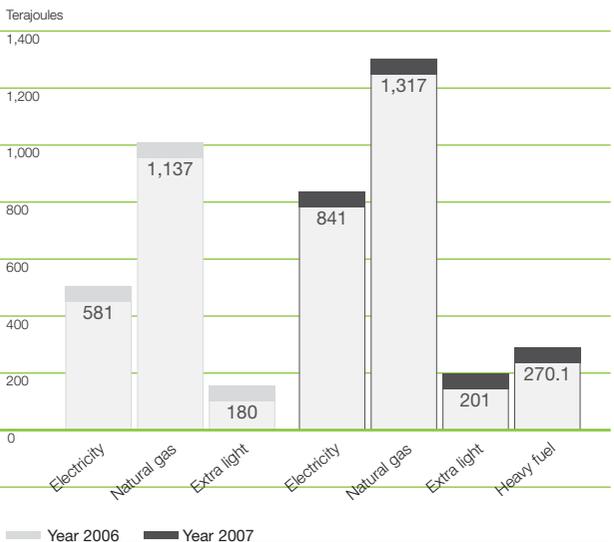
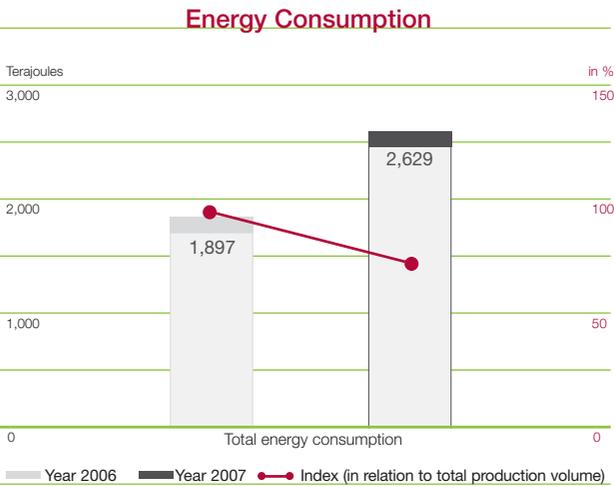
Under the banner of “prevention is better than cure”, employees at our site at Cimanggis in Indonesia hold one-day activities to raise awareness of EHS issues such as fire-fighting training and blood donation sessions. Employees also support local health services for the site’s neighbours.



“Blue” green electricity

All locations are looking at ways of lowering their CO₂ emissions. Our Vernier site in Switzerland, has chosen to offset its CO₂ emissions from the electricity consumption by buying “green” electricity from the local electricity grid. The site has a contract with the local electricity provider and buys 100% hydroelectric power. The price for this energy is higher, but the total savings are worth the equivalent to 687 tons of CO₂.

100% hydropower



ENERGY

Our energy indicators primarily cover the consumption of electricity, fuel and natural gas to produce ingredients and to manufacture mixtures of liquids and powders.

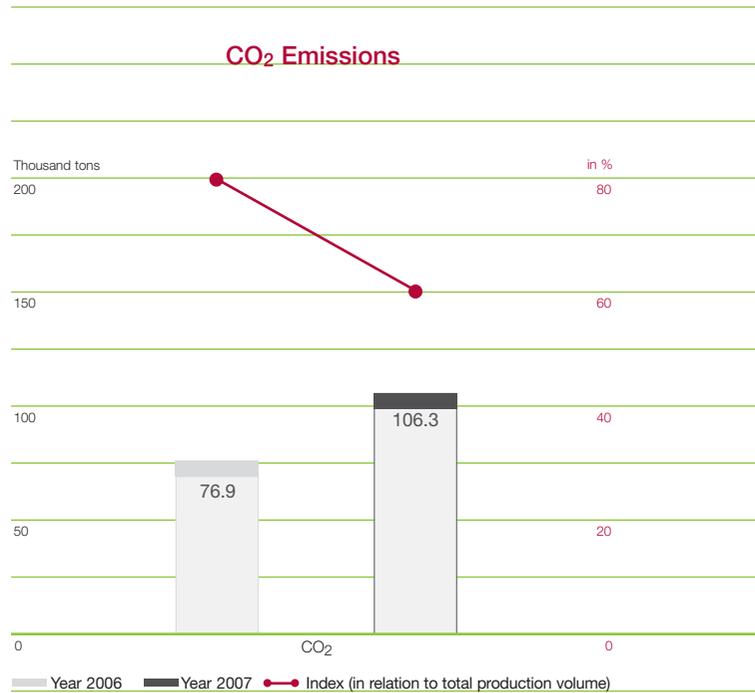
At all locations combined, there was an increase in energy use of 35% in 2007. However, proportionally there was a positive increase of energy efficiency of 25%. The reasons for this significant energy efficiency increase are difficult to explain as the technologies used are comparable. The main explanation therefore lies in the difference of the product portfolio.

It has been Givaudan’s strategy to decrease the percentage of fuel in total fossil energy consumed and convert it to natural gas. Since the start of the year 2000 we have been able to substitute heavy fuel with extra light fuel or natural gas. The acquisition of Quest International included one location in Mexico that uses heavy fuel. We will continue our efforts to upgrade our major energy consuming equipment such as boiler houses and air treatment devices. We will also intensify our effort to recover lost energy and bring it back into the system.

CO₂ EMISSIONS

The CO₂ (carbon dioxide) emissions reported are defined under “scope 1” of the greenhouse gas protocol initiative of the WRI/WBCSD (World Resource Institute and the World Business Council for Sustainable Development). These emissions come from stationary combustion installations and production processes.

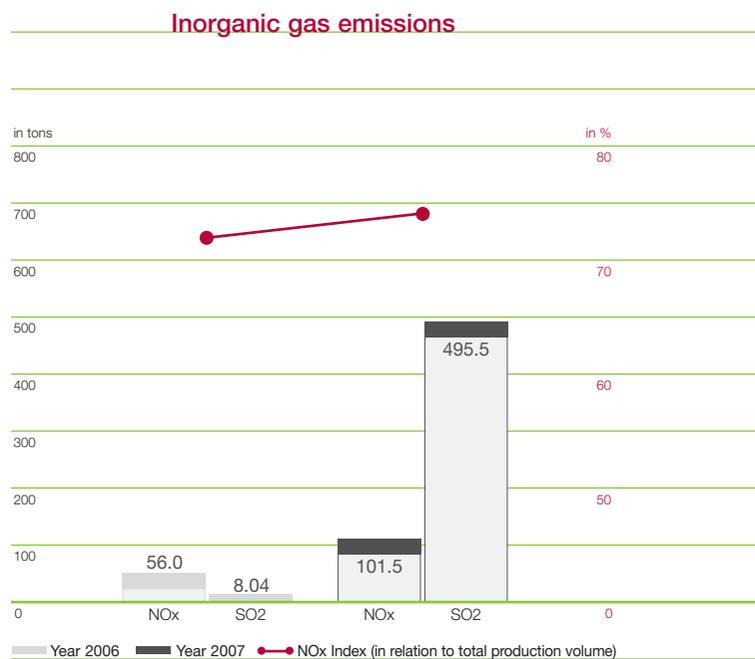
The use of fossil fuel goes hand in hand with emissions of CO₂. In 2007, we achieved a CO₂ efficiency increase of about 25% due to the change in our product portfolio through the acquisition of Quest International. Despite this improvement and the fact that the fragrance and flavour industry is not an energy intensive sector, we aim to minimise CO₂ emissions and optimise energy management. Sharp rises in the costs of energy are an additional driver for efficiency improvements and the search for energy alternatives.



INORGANIC GAS EMISSIONS

Inorganic gas emissions reported are sulphur oxides (SO₂) and nitrogen oxides (NO_x). These emissions occur during the combustion of fossil fuel.

Emissions of NO_x depend on the type of fuel used. While Quest International had a favourable influence on the overall energy consumption (due to the different product mix), this brought a more negative mix of energy sources. The use of heavy fuel oil at our newly acquired location at Pedro Escobedo in Mexico had a dramatic influence on our inorganic gas emission balance, although the absolute figure remains negligible in the wider industrial scene of Mexico. This does not stop our site to investigate into good and economically viable alternatives.



Seeing the light

There's no doubt that people perform and feel better under daylight compared to artificial light. It's safer too, according to studies, because there is better morale and performance, and so fewer errors. There are environmental benefits as well.

With this in mind, lighting improvements at the production and warehouse areas were undertaken in 2007 at our site at Cuernavaca in México. A range of different lighting arrangements were introduced, including the installation of nearly 40 Ciralight SunTracker lamps.

These lamps use sun-tracking technology and mirrors to "follow" the sun throughout the day, allowing artificial lights to be turned off for up to 12 hours per day.

The new lighting arrangement at Cuernavaca has resulted in a reduction of energy use of an estimated 43% of kilowatt hours and a cut of about 43% in carbon dioxide emissions.

Burning issue

What can be done with hazardous waste produced in a manufacturing process? At our Pedro Escobedo site in México, efforts to dispose of such waste safely and effectively have been refined in recent years with significant success.

Working with the local authorities, the disposal of organic residues has moved from the straightforward burning of solid residues to liquidising these residues before incineration.

The benefits of this approach include a reduction in emissions to air as well as cuts in the costs of oil used for the burners and of residues disposal.

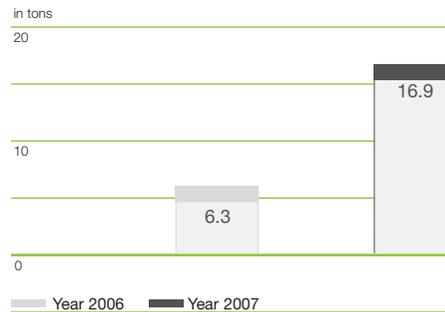


CFC

CFCs (chlorofluorocarbons) reported are chemicals used in cooling or fire extinguishing devices.

Givaudan will continue to decommission equipment containing CFCs and to replace them with alternatives. The consumption of CFCs remained stable in 2007, although this does not reflect the fact that the number of sites increased since the last reporting period. We expect CFC use to increase in 2008 because of this.

CFC Inventory



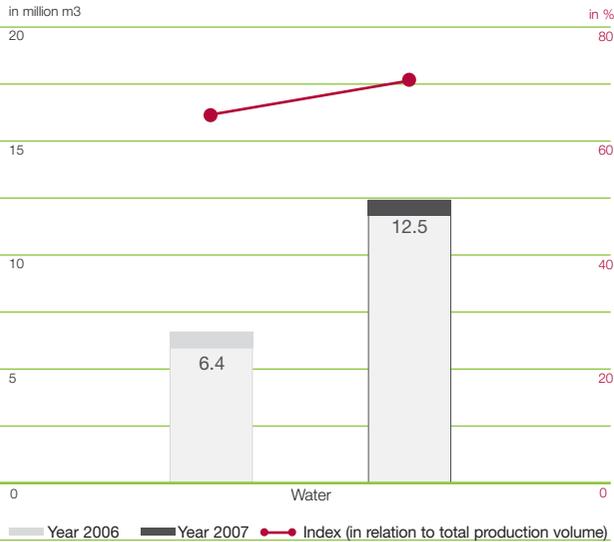
CFC consumption



Treated waste water ends up as gardening water

Our Jigani site in India is treating its waste water in such a way that it can be fully used as gardening water. Domestic organic waste and the process waste (lean waste) is sent through a series of steps: the process waste goes through an oil and grease trap, then both wastes are directed into an aeration basin and stirred with air, then put into a settling tank. The sludge is used as garden manure, while the liquid undergoes a charcoal and sand treatment before being used as gardening water. All the water (2,200 cubic metres) is used internally. The process has been approved by the state environmental authorities.

Water Consumption



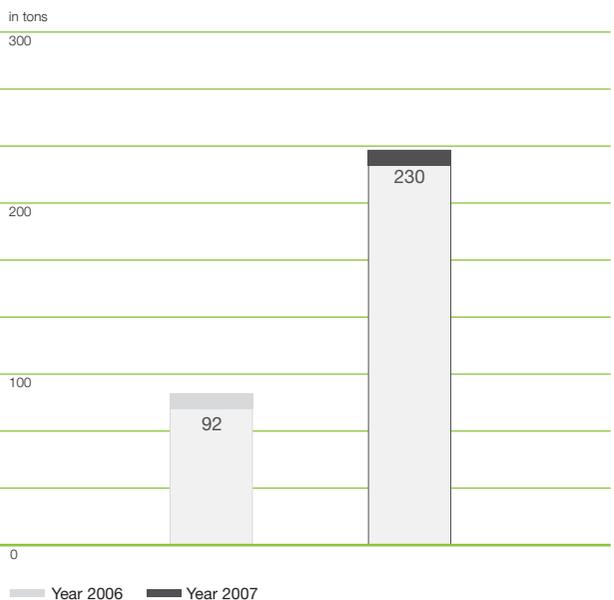
WATER

Total water consumption reported is industrial water from rivers or wells as well as drinking water from public systems.

Our multipurpose site at Vernier in Switzerland uses 70% of our total water consumption. A large amount is used as cooling water. Water is taken from a nearby river for cooling purposes. This water is never in contact with our products and is returned to the river after being checked for quality and temperature.



Total Organic Carbon



WASTE WATER QUALITY

The figures for our waste water quality, measured in TOC (total organic carbon), relate only to those sites with their own waste water treatment plants (WWTPs).

Most Givaudan sites do not have their own WWTPs and their waste water is handled by public systems. This makes it difficult if not impossible for us to effectively measure the TOCs of the various treatments.

It is difficult to receive reliable and representative data from sites sending their waste water directly into public systems. The cost of waste water treatment in these cases is mainly calculated on the basis of volumes sent to external WWTPs.

An average TOC figure of an external treatment plant is not representative of the quality of our waste water and so is not considered in this report. Asking the sites to occasionally measure their TOCs may also not be representative because the product mix - and therefore the waste water mix - can change almost every day.

Recycling in Australia

Recycling has been a focus of EHS activity at our Smithfield manufacturing site near Sydney in Australia, with significant achievements particularly in the area of product containers supplied to customers.

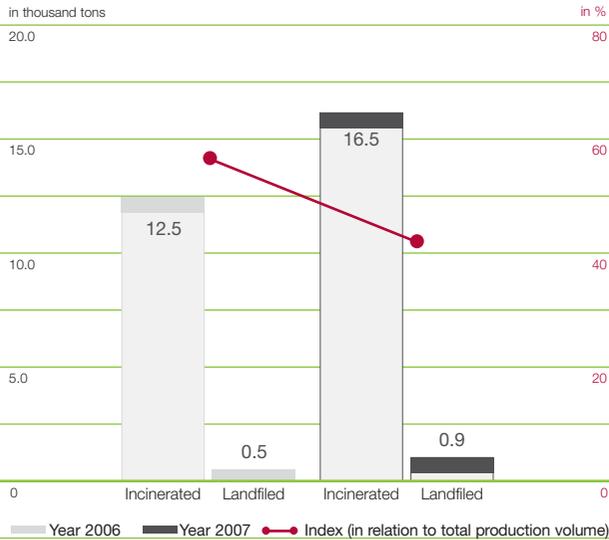
Once delivered and used by customers, these intermediate bulk containers (IBCs) were previously sent to landfill. By supplying the product in larger IBCs, the Smithfield site has cut the manual handling needed by staff as well as by customers.



Recycling auction on the internet

Our Kempththal site near Zurich in Switzerland tried to find alternative solutions for 300-tons salty cleaned residues normally sent to an external incineration plant. Through an internet auction, the site found a partner in the animal food industry interested in buying the “waste product” for recycling in its own product chain. The Kempththal site does not have to send the waste to an incinerator anymore and can additionally benefit from yearly cost savings of CHF 100,000.

Hazardous Waste

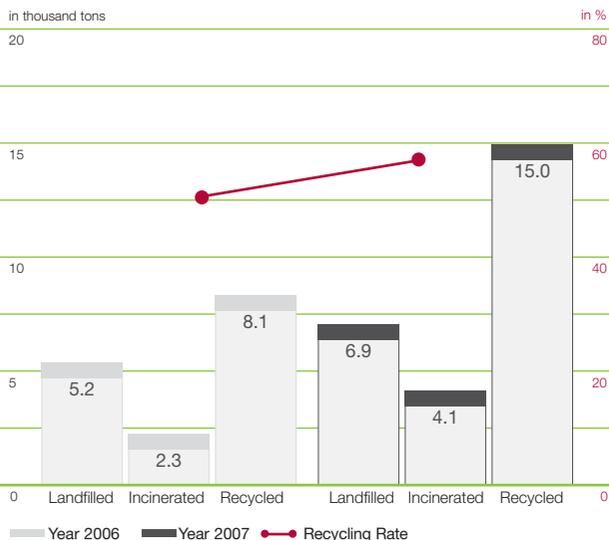


HAZARDOUS WASTE

Hazardous wastes reported are mainly flammable solvents, distillation residues and mineral sludge from our internal waste water treatment plants.

Our main goal is to be able to avoid all hazardous waste, of course. Proportionally, total waste decreased by 23% due to the change of product portfolio through the acquisition. 55% of landfilled hazardous waste came from one location and corresponds to its amount of sludge from its waste water treatment plant. It should be noted that the classification of such wastes differs around the globe. In some cases sludge is classified as hazardous waste, in some countries as non-hazardous waste.

Non Hazardous Waste



NON-HAZARDOUS WASTE

Non-Hazardous wastes reported are mainly construction material, sludge, packaging material and vegetable material.

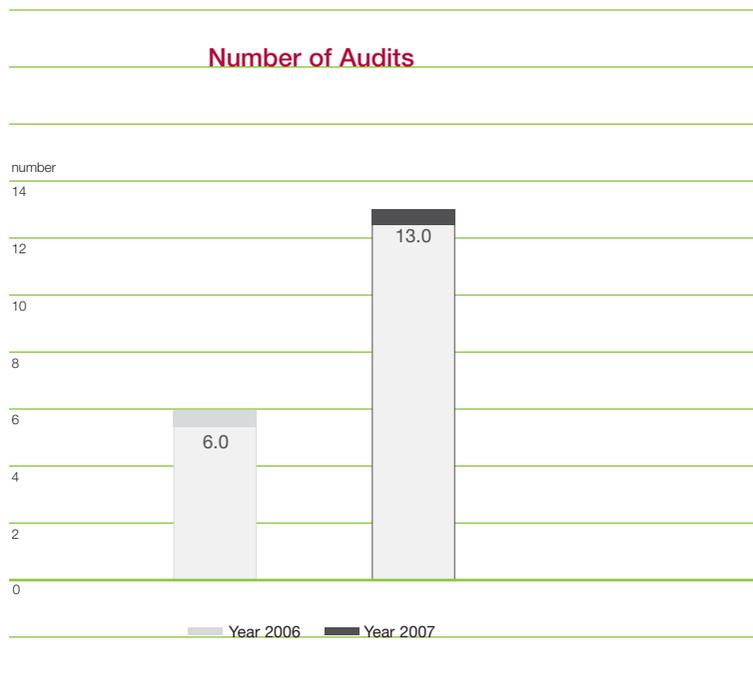
The total non-hazardous waste decreased proportionally to the production volume. Broken down to the different waste types, it is very positive to see that we were able to decrease substantially the proportion of our waste sent to the landfill. On the other hand we were able to increase again the proportion of recycled waste. We will continue our efforts to find alternative ways to increase our recycling rate bearing in mind that we are first looking to avoid waste. We encourage therefore also the creativity of our employees in finding sustainable solutions.

AUDIT

Number of audits reported and carried out by the global EHS team.

Thirteen audits were carried out by the global EHS organisation in 2007. The objectives of these audits were mainly the review of compliance against our internal global requirements. The frequency of such exercises is normally three years. It is now the fifth year we have conducted the reviews jointly with our property insurer who puts the focus on fire protection aspects. This partnership has two positive effects. First, the location does not have to undergo two audits, which are always time consuming and resource intensive. Secondly, the insurer receives a broader picture of the company's EHS strategy.

During the reporting year the focus was mainly on the acquired sites in order to speed up the process of integration.



Optimisation of processes

Traditionally, most reactions for Specialties are carried out at the boiling temperature of the solvent used - 100°C if it is water at normal pressure - and condensing again the solvent by cooling it at the top of the column. This technique - reflux - guarantees a very good stability of the temperature and is useful for chemical reactions requiring several hours or more to complete.

An analysis by our team of chemists and engineers at Sant Celoni in Barcelona, Spain, suggested that many reactions could be run - without substantial loss of time - at a temperature lower than reflux. Modern control systems allow good stability of temperature without using reflux. By carrying the reaction at a sub-reflux temperature (5°C below boiling point), the energy used to vaporise the solvent at its boiling temperature, as well as the energy to condense the vapours afterwards, is saved.

The approach was tested successfully on one product and it is planned to extend it to others.



In the spotlight

Vernier on the outskirts of Geneva in Switzerland is home to Givaudan's largest and most complex manufacturing site.

Iris Obermueller gives an insight into her role as EHS manager there.



What happens at Vernier and what work do you do?

We have everything at Vernier that you would expect in a major fragrance ingredients manufacturing facility – production, warehousing, laboratories and offices, for example. It follows that we need the facilities and capabilities to deal with the impact of our operations on the environment and on the health and safety of our employees.

Our raw materials include chemicals, some of which are hazardous when not handled properly. So we require facilities

and training for their proper handling and storage. Risk assessment is an important part of our work as well.

Naturally we comply with national, international and local laws and regulations, and we have experts to understand everything about our processes and products. We have a team to keep an eye on all this and I have the privilege to lead the Vernier team of 30 people, including the fire brigade and security staff.

My role also includes liaising with EHS managers at other Givaudan sites – it is important to have exchanges of best practices with my colleagues and with other industries. In many ways, EHS is a common language around the world and across industry sectors.

What attracts you to the job?

My work has many different aspects and I find this varied nature extremely satisfying. I'm qualified in chemical engineering and have an MBA. My work involves managing projects and people, and so it involves human aspects as well as business ones.

My aim – and that of the team – is to promote and increase EHS performance and standards at our site. Every new employee is introduced to our safety standards and trained in a way that is appropriate to their job. We are also trained to manage crises – we must always be prepared for the unexpected. To me this is the “real” business, one in which I'm proud to be involved.

What are the challenges in your work?

The main challenge is to minimise the effect of our operations on the environment. There is a constant flow of products on site and every day we need to establish that we are keeping the air, ground and water clean.

Crucially, we must keep our employees safe in the work they do. I want every employee to leave the site every day in the same physical state they came in – a simple aim but one which requires constant attention and work.

We re-emphasised this by starting 2007 with a zero tolerance programme, encouraging our employees to change their behaviour such that risk is avoidable. I feel any accident is avoidable – and an accident is one too many.

How does the site get on with its neighbours?

People live close to the site and we make every effort to maintain good relations. In this respect, odour emissions from our operations are our main concern. Oddly, even “good” and harmless smells can be a problem. We are in the fragrance field, after all.

In 2007 we had four complaints from neighbours about smells, but we established that just one of these came from our site. We took immediate action to remedy the situation, of course.

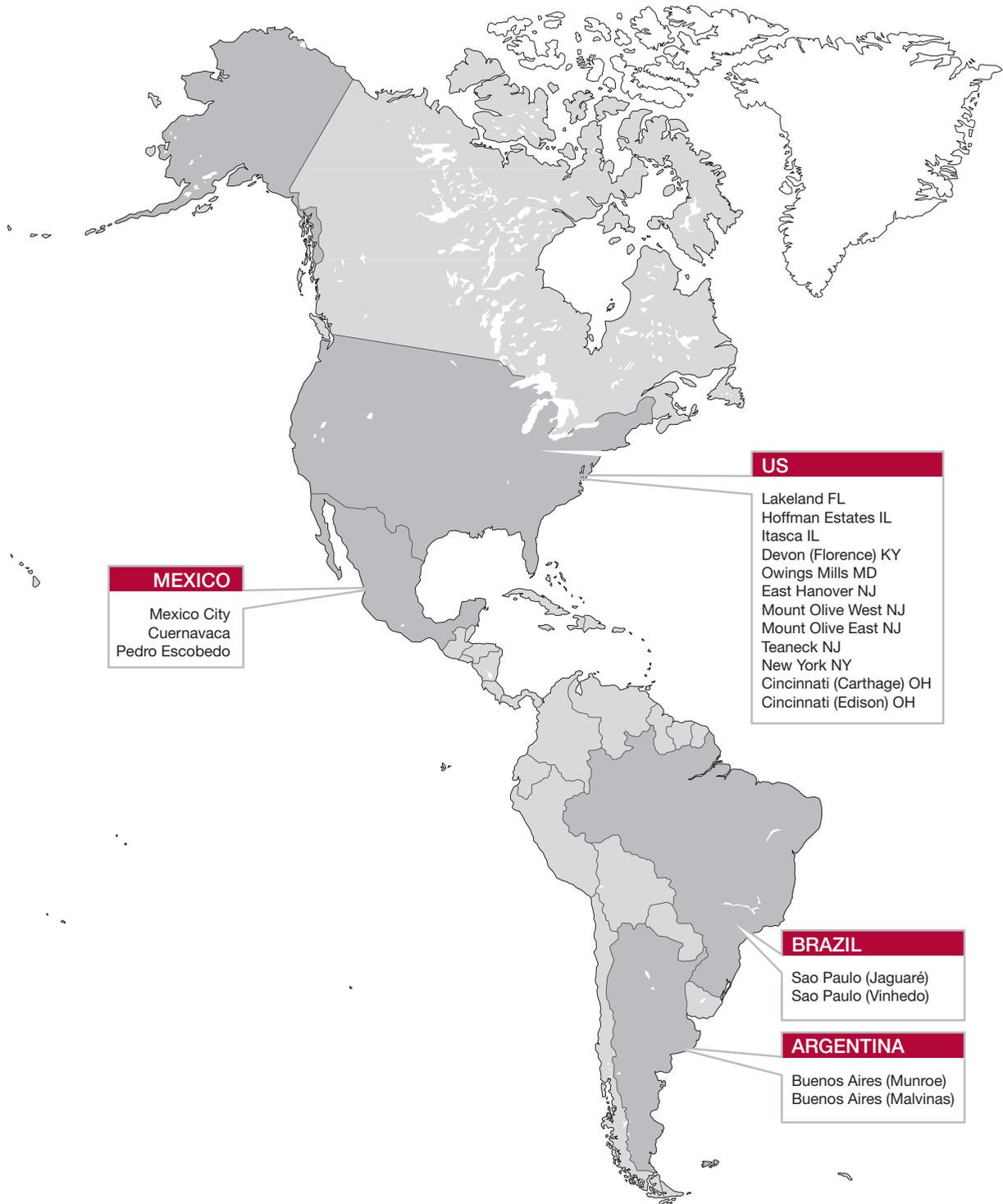
Is gender a factor in your job?

Not at all. My department has four females and I hope there will be more in future. I enjoy the different approaches and conventions that complement each other, but we share the same language – the language of EHS. What makes the difference in the end is how we work together as a team, not whether you are male or female.

What about your work/life balance?

As we speak I am due to give birth to my first child and so there will be extra and obvious challenges in managing my work/life balance. But I am grateful that Givaudan provides an environment for finding such a balance. Anyway, I like challenges.

SITES





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